IN THE CLAIMS:

Please amend the claims as follows:

1-91 (canceled).

92. (currently amended) A reconstituted non-human mammalian embryo clone of a pre-existing, ~~non-embryonic~~ adult mammal from which a differentiated cell has been taken,

~~wherein the embryo clone has the same set of chromosomes as the pre-existing mammal,~~

wherein the embryo clone is produced by a process comprising:

(a) transferring the nucleus of the differentiated cell or a cell obtained by culture thereof into a suitable enucleated recipient cell from the same species, thereby obtaining a reconstituted cell,

wherein the differentiated cell or cell obtained by culture thereof is a quiescent diploid cell at the time of transfer;

(b) activating the recipient cell before, during or after nuclear transfer; and

(c) incubating the reconstituted cell such that the embryo clone develops,

wherein the embryo clone is capable of developing to term.

93. (previously presented) The non-human mammalian embryo clone according to claim 92, wherein the recipient cell used in the method is an oocyte.

94. (previously presented) The non-human mammalian embryo clone according to claim 92, wherein the differentiated cell or cell obtained by culture thereof is a cultured cell.

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95. (previously presented) The non-human mammalian embryo clone according to claim 92, wherein the embryo is a sheep embryo.

96. (previously presented) The non-human mammalian embryo clone according to claim 92, wherein the embryo is a pig embryo.

97. (previously presented) The non-human mammalian embryo clone according to claim 92, wherein the embryo is a goat embryo.

98. (previously presented) The non-human mammalian embryo clone according to claim 92, wherein the embryo is a mouse embryo.

99. (previously presented) The non-human mammalian embryo clone according to claim 92, wherein the embryo is a rabbit embryo.

100. (previously presented) The non-human mammalian embryo clone according to claim 92, wherein the embryo is a cow embryo.

101. (currently amended) A reconstituted non-human mammalian clone of a pre-existing, ~~non-embryonic~~ adult mammal from which a differentiated cell has been taken,

~~wherein the non-human mammalian clone has the same set of chromosomes as the pre-existing mammal,~~

wherein the clone is produced by a process comprising:

(a) transferring the embryo clone according to claim 92 to a female of the same species; and

(b) developing the embryo clone into the non-human mammalian clone.

102. (previously presented) The non-human mammalian clone according to claim 101, wherein the mammal is a sheep.

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103. (previously presented) The non-human mammalian clone according to claim 101, wherein the mammal is a pig.

104. (previously presented) The non-human mammalian clone according to claim 101, wherein the mammal is a goat.

105. (previously presented) The non-human mammalian clone according to claim 101, wherein the mammal is a mouse.

106. (previously presented) The non-human mammalian clone according to claim 101, wherein the mammal is a rabbit.

107. (previously presented) The non-human mammalian clone according to claim 101, wherein the mammal is a cow.

108. (currently amended) A non-human mammalian clone of a pre-existing, ~~non-embryonic~~ adult mammal from which a differentiated cell has been taken,

~~wherein the non-human mammalian clone has the same set of chromosomes as the pre-existing mammal,~~

wherein the clone is produced by a process comprising:

(a) transferring the nucleus of the differentiated cell or a cell obtained by culture thereof into a suitable enucleated recipient cell from the same species, thereby obtaining a reconstituted cell,

wherein the differentiated cell or cell obtained by culture thereof is a quiescent diploid cell at the time of transfer;

(b) activating the recipient cell before, during or after nuclear transfer;

(c) incubating the reconstituted cell such that an embryo develops;

(d) transferring the embryo to a female of the same species; and

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(e) developing the embryo to term ~~into the non-human mammalian clone~~.

109. (previously presented) The non-human mammalian clone according to claim 108, wherein the differentiated cell or cell obtained by culture thereof is a cultured cell.

110. (previously presented) The non-human mammalian clone according to claim 108, wherein the mammal is a sheep.

111. (previously presented) The non-human mammalian clone according to claim 108, wherein the mammal is a pig.

112. (previously presented) The non-human mammalian clone according to claim 108, wherein the mammal is a goat.

113. (previously presented) The non-human mammalian clone according to claim 108, wherein the mammal is a mouse.

114. (previously presented) The non-human mammalian clone according to claim 108, wherein the mammal is a rabbit.

115. (previously presented) The non-human mammalian clone according to claim 108, wherein the mammal is a cow.

116. (currently amended) A non-human mammalian embryo clone of a pre-existing, ~~non-embryonic~~ adult mammal from which a differentiated cell has been taken, wherein the non-human mammalian embryo clone ~~has the same set of chromosomes as the pre-existing mammal,~~ is capable of developing to term and ~~term, and~~ is cloned by transfer of a nucleus from the differentiated cell or a cell obtained by culture thereof into an enucleated oocyte of the same mammalian species, and wherein the cell is a quiescent diploid cell at the time of nuclear transfer.

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117. (previously presented) The non-human mammalian embryo clone of claim 116, wherein the non-human mammal is selected from the group consisting of cows, sheep, pigs, goats, mice, and rabbits.

118. (previously presented) The non-human mammalian embryo clone of claim 116, wherein the cell is a cultured cell.

119. (previously presented) The non-human mammalian embryo clone of claim 116, wherein the cell is a cell in which quiescence has been induced.

120. (previously presented) The non-human mammalian embryo clone of claim 116, wherein the cell is a cell that is naturally quiescent.

121 (currently amended) A non-human mammalian clone of a pre existing, ~~non-embryonic~~ adult mammal from which a differentiated cell has been taken, wherein the non-human mammalian clone ~~has the same set of chromosomes as the pre-existing mammal,~~ is capable of developing to term and ~~term, and~~ is cloned by transfer of a nucleus from the differentiated cell or a cell obtained by culture thereof into an enucleated oocyte of the same mammalian species, and wherein the cell is a quiescent diploid cell at the time of nuclear transfer.

122. (previously presented) The non-human mammalian clone of claim 121, wherein the pre-existing, individual non-human mammal is selected from the group consisting of cows, sheep, pigs, goats, mice, and rabbits.

123. (previously presented) The non-human mammalian clone of claim 121, wherein the cell is a cultured cell.

124. (previously presented) The non-human mammalian clone of claim 121, wherein the cell is a cell in which quiescence has been induced.

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125. (previously presented) The non-human mammalian clone of claim 121, wherein the cell is a cell that is naturally quiescent.

126. (currently amended) A ~~reconstituted non-human mammalian embryo clone of a pre-existing, non-embryonic mammal from which a differentiated cell has been taken,~~

~~wherein the embryo clone is~~ transgenic non-human mammal produced by a process comprising:

(a) obtaining ~~the~~ a differentiated cell from ~~the~~ a pre-existing, ~~non-embryonic,~~ adult, non-human mammal;

(b) genetically modifying the differentiated cell;

(c) transferring the nucleus of the genetically modified cell into a suitable enucleated recipient cell from the same species, thereby obtaining a reconstituted cell,

wherein the genetically modified cell is a quiescent diploid cell at the time of transfer;

(d) activating the recipient cell before, during or after nuclear transfer; and

(e) incubating the reconstituted cell such that the ~~embryo clone~~ transgenic mammal develops,

wherein the ~~embryo clone~~ transgenic mammal is capable of developing to term.

127. (currently amended) A ~~non-human mammalian clone of a pre-existing, non-embryonic, mammal from which a differentiated cell has been taken,~~

~~wherein the clone is~~ transgenic non-human mammal produced by a process comprising:

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(a) obtaining ~~the~~ a differentiated cell from ~~the~~ a pre-existing, ~~non-embryonic,~~ adult, non-human mammal;

(b) genetically modifying the differentiated cell;

(c) transferring the nucleus of the genetically modified cell into a suitable enucleated recipient cell from the same species, thereby obtaining a reconstituted cell,

wherein the genetically modified cell is a quiescent diploid cell at the time of transfer;

(d) activating the recipient cell before, during or after nuclear transfer;

(e) incubating the reconstituted cell such that an embryo develops;

(f) transferring the embryo to a female of the same species; and

(g) developing the embryo to term ~~into the non-human mammalian clone~~.

128. (currently amended) A non-human, ~~non-embryonic~~ adult mammal from which a ~~differentiated~~ somatic donor cell has been taken and a clone of the adult mammal produced from the cell ~~therefrom~~,

~~wherein the clone has the same set of chromosomes as the non-human mammal~~ and wherein the clone is made by a process comprising:

(a) transferring the nucleus of the ~~differentiated~~ somatic cell or a cell obtained by culture thereof into a suitable enucleated recipient cell from the same species,

wherein the ~~differentiated~~ somatic cell or cell obtained by culture thereof is a quiescent diploid cell at the time of transfer;

(b) activating the recipient cell before, during or after nuclear transfer;

(c) incubating the reconstituted cell such that an embryo develops;

(d) transferring the embryo to a female of the same species; and

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(e) developing the embryo to term ~~into a clone that has the same set of chromosomes as the non-human mammal~~.

129. (currently amended) A cell culture ~~comprising non-human mammalian differentiated cells~~ and a ~~non-human mammalian~~ clone produced from a cell in the culture ~~therefrom~~,

~~wherein the clone has the same set of chromosomes as cells in the cell culture, and~~

wherein the cell culture comprises somatic cells from an adult, non-human mammal, and

wherein the clone is made by a process comprising:

(a) transferring the nucleus of a ~~differentiated~~ somatic cell from the cell culture ~~cell~~ into a suitable enucleated recipient cell from the same species,

wherein the ~~differentiated~~ somatic cell is a quiescent diploid cell at the time of transfer;

(b) activating the recipient cell before, during or after nuclear transfer;

(c) incubating the reconstituted cell such that an embryo develops;

(d) transferring the embryo to a female of the same species; and

(e) developing the embryo to term ~~into a clone that has the same set of chromosomes as cells in the cell culture~~.

130. (previously presented) A reconstituted non-human mammalian oocyte comprising the nucleus of a quiescent, differentiated, non-human mammalian, diploid donor cell from the same species,

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wherein the reconstituted non-human mammalian oocyte is capable of developing to term.

131. (new) A cell culture and a live offspring clone of an adult, non-human mammal,

wherein the clone is produced from a cell in the culture, and

wherein the cell culture comprises somatic cells from the adult, non-human mammal.

132. (new) The cell culture and clone according to claim 131, wherein the mammal is a sheep.

133. (new) The cell culture and clone according to claim 131, wherein the mammal is a pig.

134. (new) The cell culture and clone according to claim 131, wherein the mammal is a goat.

135. (new) The cell culture and clone according to claim 131, wherein the mammal is a mouse.

136. (new) The cell culture and clone according to claim 131, wherein the mammal is a rabbit.

137. (new) The cell culture and clone according to claim 131, wherein the mammal is a cow.

138. (new) A cell culture and a clone of an adult, non-human mammal,

wherein the clone is produced from a cell in the culture,

wherein the cell culture comprises somatic cells from the adult, non-human mammal, and

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wherein the clone is capable of developing to term.

139. (new) The cell culture and clone according to claim 138, wherein the mammal is a sheep.

140. (new) The cell culture and clone according to claim 138, wherein the mammal is a pig.

141. (new) The cell culture and clone according to claim 138, wherein the mammal is a goat.

142. (new) The cell culture and clone according to claim 138, wherein the mammal is a mouse.

143. (new) The cell culture and clone according to claim 138, wherein the mammal is a rabbit.

144. (new) The cell culture and clone according to claim 138, wherein the mammal is a cow.

145. (new) A pair of non-human mammals comprising an adult, parental non-human mammal and its live offspring clone.

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